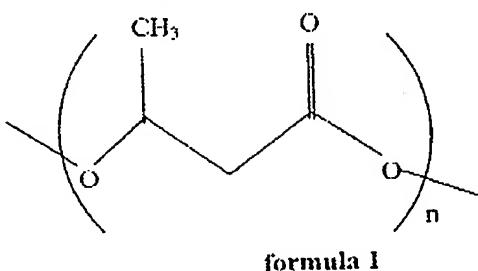


IN THE CLAIMS:

Claims 1 - 10 (cancelled)

Claim 11 (new) A process for the isolation of polyhydroxybutyrate of formula 1



said process comprising the steps of:

- (a) growing a culture of *Bacillus mycoides* RLJ B-017 bacteria on a growth medium comprising a carbon source selected from the group consisting of sucrose, molasses and pineapple waste for a period of time sufficient to produce the polyhydroxybutyrate of formula 1;
- (b) lysing the bacteria in the culture to release the polyhydroxybutyrate of formula 1;
- and
- (c) isolating the polyhydroxybutyrate of formula 1.

Claim 12 (new) The process as claimed in claim 11, wherein the culture is grown on the growth medium for a time period equal to or greater than twenty four hours.

Claim 13 (new) The process as claimed in claim 12, wherein the growth medium comprises sucrose.

Claim 14 (new) The process as claimed in claim 11, wherein said growth medium comprises (g l⁻¹): sucrose, 20; nutrient broth, 8; KH₂PO₄, 1.5; (NH₄)₂SO₄, 2.0; Na₂HPO₄.12H₂O, 2.239; MgSO₄.7H₂O, 0.2; CaCl₂.2H₂O, 0.02; FeSO₄.7H₂O, 0.01; and a trace-element solution, said trace element solution comprising (g l⁻¹): ZnSO₄.7H₂O, 0.2; H₃BO₃, 0.6; MnCl₂. 4H₂O, 0.06; CoCl₂. 6H₂O, 0.4; CuSO₄.4H₂O, 0.02; NaMoO₄.2H₂O, 0.06; said growth medium having a pH of 7.2.

Claim 15 (new) The process as claimed in claim 12, wherein the growth medium comprises molasses.

Claim 16 (new) The process as claimed in claim 11, wherein said growth medium comprises (g-l⁻¹): molasses, 20; nutrient broth 8; KH₂PO₄, 1.5; (NH₄)₂SO₄, 2.0; Na₂HPO₄.12H₂O, 2.239; MgSO₄.7H₂O, 0.2; CaCl₂.2H₂O, 0.02; FeSO₄.7H₂O, 0.01; and a trace element solution, said trace element solution comprising (g l⁻¹): ZnSO₄.7H₂O, 0.2; H₃BO₃, 0.6; MnCl₂. 4H₂O, 0.06; CoCl₂. 6H₂O, 0.4; CuSO₄.4H₂O, 0.02; NaMoO₄.2H₂O, 0.06, said growth medium having a pH of 7.2.

Claim 17 (new) The process as claimed in claim 12, wherein the growth medium comprises pineapple waste.

Claim 18 (new) The process as claimed in claim 11, wherein said growth medium comprises (gl⁻¹): pineapple waste, 20; nutrient broth, 8; KH₂PO₄, 1.5; (NH₄)₂SO₄, 2.0; NaHPO₄.12H₂O,

2.239; MgSO₄.7H₂O, 0.2; CaCl₂.2H₂O, 0.02; FeSO₄.MH₂O, 0.01; and a trace-element solution, said trace element solution comprising (g l⁻¹): ZnSO₄.7H₂O, 0.2; H₃BO₃, 0.6; MnCl₂.4H₂O, 0.06; CoCl₂.6H₂O, 0.4; CuSO₄.4H₂O, 0.02; NaMoO₄.2H₂O, 0.06; said growth medium having a pH of 7.2.

Claim 19 (new) The process as claimed in claim 12, comprising pelletizing the isolated polyhydroxybutyrate of formula 1 to form a cell pellet and treating the cell pellet with an ionic reagent comprising a dispersion of a metal hypochlorite in a halogenated hydrocarbon solvent to agglomerate the polyhydroxybutyrate of formula 1.

Claims 20 (new) The process as claimed in claim 19, wherein the metal hypochlorite is selected from the group consisting of sodium hypochlorite and calcium hypochlorite.

Claim 21 (new) The process as claimed in claim 19, wherein the halogenated hydrocarbon solvent comprises chloroform.

Claim 22 (new) The process as claimed in claim 19, wherein the concentration of said ionic reagent is in the range of one molar to one millimolar.

Claim 23 (new) The process as claimed in claim 12, wherein the polyhydroxybutyrate of formula 1 is isolated by centrifugation to obtain a plurality of separate phases, including a lower phase comprising the polyhydroxybutyrate of formula 1; dissolving the polyhydroxybutyrate of

formula 1 in chloroform and adding ethanol to form a precipitate.

Claim 24 (new) The process as claimed in claim 23, wherein the precipitate is chilled and recovered by further centrifuging to recover the polyhydroxybutyrate of formula 1.